

## **REMARKS/ARGUMENTS**

In the outstanding Office Action, claims 1-11 were examined. Applicants amend claims 1, 2, 6, 8, and 11. Applicants respectfully request reconsideration in view of the aforementioned amendment and the following remarks. Accordingly, claims 1-11 are pending.

### **I. Objection to the Claims**

Claims 1, 2, 6, 8, and 11 are objected to for clarification reasons. In response, claims 1, 8, and 11 are amended to replace the phrase “tracking the phase offset caused by the sampling frequency offset” with the phrase “tracking a phase offset caused by the sampling frequency offset” to clarify that the phase offset corresponds to the sampling frequency offset and not the carrier frequency offset. In addition, claims 2 and 6 are amended to clarify that these claims refer to phase offsets of the carrier frequency offset and the sampling frequency offset. Accordingly, Applicants respectfully request reconsideration and withdrawal of the objection to claims 1, 2, 6, 8, and 11.

### **II. Claims Rejected Under 35 U.S.C § 102**

Claims 1, 2, 6, and 11 stand rejected under 35 U.S.C. § 102(a) as being anticipated by U.S. Patent Publication No U.S. 2002/0065047 issued to Moose (hereinafter “Moose”). To anticipate a claim, Examiner must show that a single reference teaches each of the elements of that claim.

The current invention comprises a method and a device for tracking a carrier frequency offset and a sampling frequency offset between a transmitter and a receiver in an Orthogonal Frequency Division Multiplexing (“OFDM”) wireless communication system and compensating the offsets based on the offsets tracked, and using a linear regression method including a phase offset estimate of a pilot signal located on a subchannel, a phase offset estimate of a data signal located on the subchannel, and an added weight.

In regard to claims 1 and 11, these claims, as amended, include the limitations of “a phase offset estimate of a pilot signal located on a subchannel, a phase offset estimate of a data

signal located on the subchannel, and an added weight.” The amendments include limitations recited in claim 5. Since the Examiner has conceded that claim 5 is allowable if rewritten in independent form (see page 10 of the Office Action) and these amended claims substantially include limitations to those recited in claim 5, Moose fails to teach the cited limitation. As a result, claims 1 and 11 overcome the rejection asserted by the Examiner because Moose fails to teach each element of claims 1 and 11. In addition, dependent claims 2 and 6 overcome the § 102(a) rejection for at least the reasons discussed in connection with independent claim 1. Accordingly, Applicants respectfully request reconsideration and withdrawal of the § 102(a) rejection of claims 1, 2, 6, and 11.

### **III. Claims Rejected Under 35 U.S.C. § 103(a)**

Claim 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Moose in view of U.S. Patent No. 7,065,146 issued to Lou et al. (hereinafter “Lou”). To establish a *prima facie* case of obviousness the Examiner must show that the cited references, combined, teach or suggest each element of a claim.

In regard to claim 3, this claim depends from claim 1 and incorporates the limitations thereof. Therefore, for at least the reasons discussed in connection with claim 1, Moose and Lou, combined, fail to teach or suggest each element of claim 3. Accordingly, Applicants respectfully request reconsideration and withdrawal of the § 103(a) rejection of claim 3.

Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Moose in view of U.S. Patent Publication No. 2003/0053564 issued to Kim et al. (hereinafter “Kim”).

In regard to claim 7, this claim depends from claim 1 and incorporates the limitations thereof. Therefore, for at least the reasons discussed in connection with claim 1, Moose and Kim, combined, fail to teach or suggest each element of claim 7. Accordingly, Applicants respectfully request reconsideration and withdrawal of the § 103(a) rejection of claim 7.

Claims 8-10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,802,117 issued to Ghosh (hereinafter “Ghosh”) in view of Moose.

In regard to claim 8, this claim, as amended, includes analogous limitations to those recited in claim 1. In particular, claim 8 includes the limitations of “a phase offset estimate of a pilot signal located on a subchannel, a phase offset estimate of a data signal located on the

subchannel, and an added weight.” Therefore, for at least the reasons discussed in connection with claim 1, Ghosh and Moose, combined, fail to teach or suggest each element of claim 8. In addition, dependent claims 9 and 10 overcome the § 103(a) rejection for at least the reasons discussed above in regard to independent claim 8. Accordingly, Applicants respectfully request reconsideration and withdrawal of the § 103(a) rejection of claims 8-10.

**IV. Allowable Subject Matter**

Applicants note with appreciation Examiner’s indication that claim 5 contains allowable subject matter. Claim 5 depends from base claim 1. Thus, since claim 5 is dependent from allowable base claim 1 (see the above discussion), Applicants believe claim 5 is in condition for allowance without rewriting it in independent form.

## CONCLUSION

In view of the foregoing, it is submitted that claims 1-11 patentably define the subject invention over the cited references of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If Examiner believes a telephone conference would be useful in moving the case forward, he is encouraged to contact the undersigned at (310) 207-3800.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§1.16 or 1.17, particularly, extension of time fees.

Respectfully submitted,

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### **CERTIFICATE OF MAILING:**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on June 18, 2007.

*Melissa Stead* *6-18-07*  
Melissa Stead June 18, 2007